

REMARKS

Claims 1-5, 7-12, 15-20 and 22-23 are now pending in the application. Claim 14 has been cancelled by this amendment and Claims 6, 13 and 21 were previously cancelled. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the amendments and remarks contained herein.

SPECIFICATION

Minor amendments have been made throughout the written specification to add a reference numeral at various areas to even more positively reference the various components shown in the drawings. No new matter has been added by these amendments. Accordingly, entry of these minor amendments is respectfully requested.

The Examiner objected to the use of the word "encoded" in claim 16, stating that the specification does not provide proper antecedent basis for this term. Although the undersigned respectfully disagrees with this determination, to expedite prosecution, a minor change has been made to the preamble of claim 16 to remove the word "encoded". It is believed that this minor amendment removes this ground for objection. Reconsideration is respectfully requested.

REJECTION UNDER 35 U.S.C. § 112

Claims 16-20 and 22-23 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the enablement requirement.

Claims 16-20 and 22-23 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement.

Claims 1-5, 7-8, 16-20 and 22-23 stand rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point and distinctly claim the subject matter which Applicant regards as the invention. This rejection is respectfully traversed.

As noted above, claim 16 has been amended to remove the word "encoded" from the preamble. Claims 1 and 16 have also been amended to correct minor instances where a limitation may have been ambiguous, or where antecedent basis may have been lacking. It is believed that all of these rejections have been overcome and reconsideration is respectfully requested.

OBVIOUSNESS TYPE DOUBLE PATENTING REJECTION

Claims 1-5, 7-12, 14-20 and 22-23 stand rejected under the judicially created doctrine of obviousness type double patenting of co-pending Application No. 10/671,204 in view of U.S. 7,301,898. While the undersigned does not necessarily agree or acquiesce to this rejection, in the interest of expediting prosecution of the present application. Applicant will submit a terminal disclaimer when the application is otherwise found allowable. Accordingly, it is believed that this rejection has been rendered moot and reconsideration and withdrawal of this rejection is most respectfully requested.

REJECTION UNDER 35 U.S.C. § 103

Claims 1-5, 7-12, 14-20, and 22-23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Martin et al. (U.S. Pat. No. 7,301,898) in view of Bloch et al. (U.S. Pat. No. 6,922,408). This rejection is respectfully traversed.

Initially it will be noted that independent claims 1, 9 and 16 have all been amended to more positively reflect the link receiver flow control algorithm or its operation in controlling the free buffer of the link receiver, as well as the credits available to the link transmitter. For example, independent claim 1 is reprinted in full below as follows for the Examiner's convenience:

1. (Currently Amended) A method, comprising:
providing, from a link ~~[[a]]~~ receiver, a plurality of data credits to a link transmitter;
allocating at the link transmitter the plurality of data credits to a plurality of logical channels;
transmitting a plurality of packets from the link transmitter to the link receiver on an ingress link, wherein the ingress link has a forward link and a reverse link, and wherein the plurality of packets are transmitted on the forward link;
storing the plurality of packets in a plurality of receiver buffers at the link receiver;
updating a free buffer pool at the link receiver with a number of free receiver buffers available to receive new packets from the transmitter, the number of free receiver buffers represented by a corresponding number of the data credits; [[and]]
using a link receiver flow control algorithm in communication with the receive buffers to monitor emptying of the receive buffers and to update to the data credits contained in the free buffer pool;
using the link receiver flow control algorithm to transmit
transmitting a flow control packet from a link receiver to the link transmitter on the reverse link if the free buffer pool contains additional data credits and the reverse link is idle, wherein the flow control packet comprises the additional data credits; and
wherein the link receiver flow control algorithm decreases the free buffer pool at the link receiver by a value corresponding to the data credits contained in the flow control packet, and increases the data credits available to the transmitter at the link transmitter in

accordance with the data credits contained in the flow control packet.

Martin et al. is directed to a credit sharing system for fibre channel links with multiple virtual channels. Martin et al., in column 7, lines 13-36 appears to make use of a pool of credits for the virtual channels (VCs), but it appears that a fixed number of credits of the pool are "advertised" (i.e., assigned to the VCs) while a subportion of the total available credits are held in a VC pool. There is no discussion or suggestion of using any form of component, or any operation, that relates to a "link receiver flow control algorithm" (component 328 in Figure 3 of the application). The link receiver flow control algorithm of the present disclosure is used in connection with the link receiver 304 (Figure 3) to control the re-supplying and removal of data credits in the free buffer pool 330. The link receiver flow control algorithm also generates the flow control packet 332 and increases (or increments) the number of data credits 320 at the link transmitter. So it will be appreciated that the link receiver is actually managing the count of the data credits at **both the link receiver and link transmitter**, in addition to **constructing the flow control packet** being sent from the link receiver to the link transmitter. Thus, the link receiver flow control algorithm is able to generate the flow control packet at suitable intervals when a desired or predetermined number of data credits become available in the free buffer pool. This provides significant added flexibility and control over managing the use of the data credits. This degree of sophistication and control is not disclosed or suggested by Martin et al.

Bloch et al. is directed to a packet communication buffering system with dynamic flow control. There is a peripheral reference to the use of a "flow control packet" in

column 1 (in the "Background" section), as noted by the Examiner, but there does not appear to be any component or operation disclosed in Bloch et al. which could potentially meet the "link receiver flow control algorithm" now set forth in the independent claims. Column 2, lines 40, 53, describes how the receiver decides whether buffer space is available at the receiver, but this does not appear to disclose or suggest anything even remotely similar to (or suggestive of) the link receiver flow control algorithm recited in the independent claims.

For at least these reasons, reconsideration and withdrawal of the rejection of the foregoing claims based on the Martin et al. and Bloch et al. references.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated: May 4, 2009

By: /Joseph M. Lafata/
Joseph M. Lafata, Reg. No. 37,166
Mark D. Elchuk, Reg. No. 33,686

HARNES, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

JML/MDE/chs

14492279.1